



**GCSE**

**Science A (4461)**

*Specification A*

**PHY1AP, PH1ASF & PH1ASH**

**Mark Scheme**

*2008 examination – March series*

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**GCSE**  
**SCIENCE A (4461)/PHYSICS (4451)**  
Objective Test Answer Key  
**PHY1AP (Energy and Electricity)**  
**March 2008**  
Foundation Tier

Question	<b>Key</b>			
One	<b>A</b>	conduction		<b>3</b>
	<b>B</b>	convection		<b>2</b>
	<b>C</b>	insulation		<b>4</b>
	<b>D</b>	radiation		<b>1</b>
Two	<b>A</b>	electrical energy		<b>3</b>
	<b>B</b>	thermal energy		<b>4</b>
	<b>C</b>	light energy		<b>1</b>
	<b>D</b>	kinetic energy		<b>2</b>
Three	<b>A</b>	acid rain		<b>3</b>
	<b>B</b>	global warming		<b>4</b>
	<b>C</b>	noise pollution		<b>2</b>
	<b>D</b>	radioactive waste		<b>1</b>
Four	<b>A</b>	coal		<b>2</b>
	<b>B</b>	natural gas		<b>4</b>
	<b>C</b>	oil		<b>1</b>
	<b>D</b>	renewable sources		<b>3</b>
Five	<b>A</b>	10		<b>3</b>
	<b>B</b>	44		<b>4</b>
	<b>C</b>	56		<b>1</b>
	<b>D</b>	2000		<b>2</b>
Six	<b>A</b>	house		<b>4</b>
	<b>B</b>	power station		<b>1</b>
	<b>C</b>	step-down transformer		<b>3</b>
	<b>D</b>	step-up transformer		<b>2</b>
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
Seven	<b>4</b>	<b>3</b>	<b>3</b>	<b>4</b>
Eight	<b>2</b>	<b>4</b>	<b>4</b>	<b>1</b>
Nine	<b>2</b>	<b>4</b>	<b>3</b>	<b>1</b>

**GCSE**  
**SCIENCE A (4461)/PHYSICS (4451)**  
 Objective Test Answer Key  
**PHY1AP (Energy and Electricity)**  
**March 2008**  
 Higher Tier

Question	<b>Key</b>			
One	<b>A</b>	house	<b>4</b>	
	<b>B</b>	power station	<b>1</b>	
	<b>C</b>	step-down transformer	<b>3</b>	
	<b>D</b>	step-up transformer	<b>2</b>	
Two	<b>A</b>	cold water is pumped into the rocks	<b>1</b>	
	<b>B</b>	steam drives turbines	<b>3</b>	
	<b>C</b>	turbines drive generators	<b>4</b>	
	<b>D</b>	water is heated by radioactive decay	<b>2</b>	
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
Three	<b>2</b>	<b>4</b>	<b>4</b>	<b>1</b>
Four	<b>2</b>	<b>4</b>	<b>3</b>	<b>1</b>
Five	<b>4</b>	<b>3</b>	<b>3</b>	<b>2</b>
Six	<b>3</b>	<b>2</b>	<b>4</b>	<b>4</b>
Seven	<b>4</b>	<b>3</b>	<b>2</b>	<b>4</b>
Eight	<b>4</b>	<b>2</b>	<b>2</b>	<b>2</b>
Nine	<b>2</b>	<b>3</b>	<b>2</b>	<b>1</b>